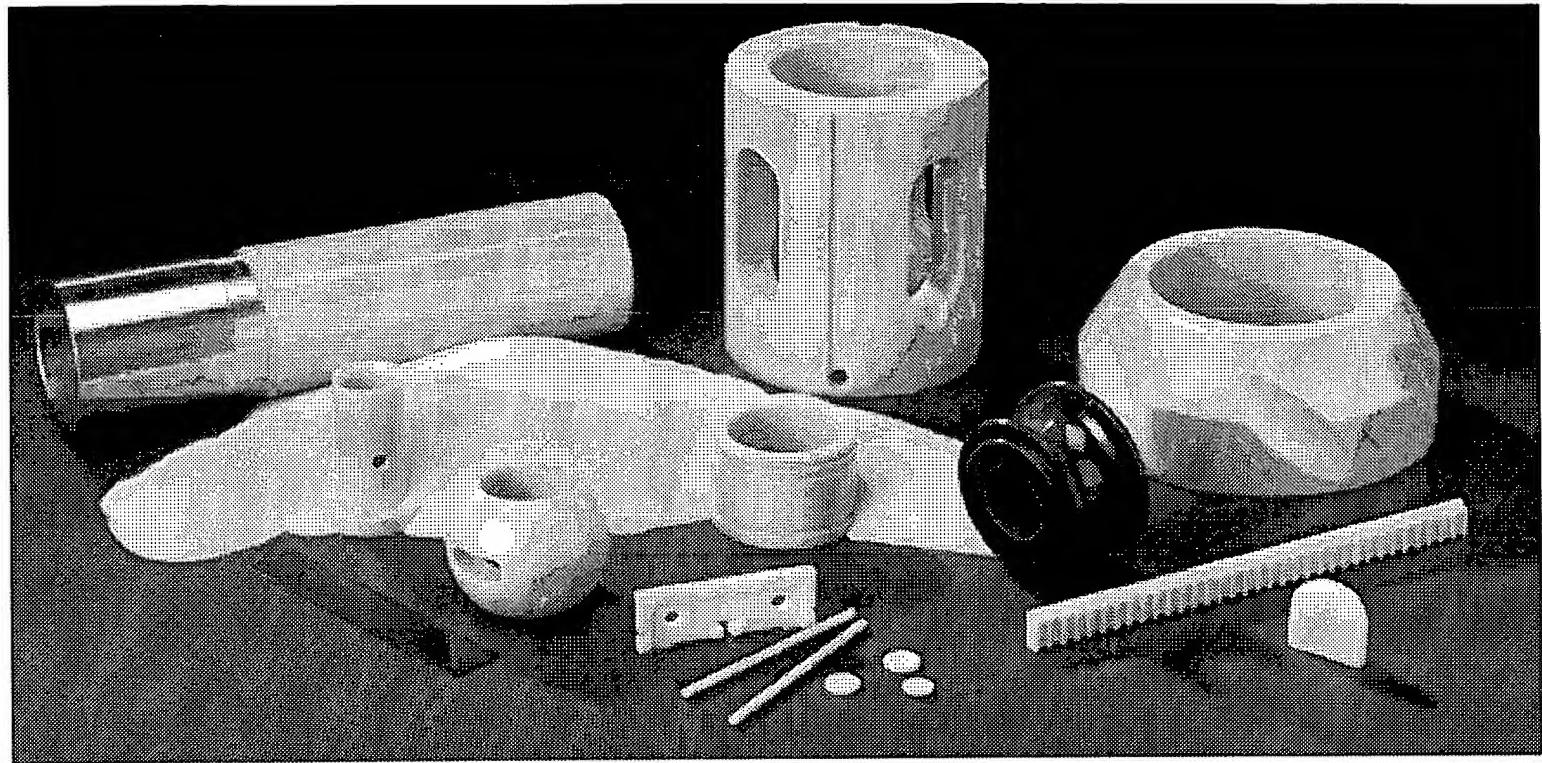


L Number	Hits	Search Text	DB	Time stamp
2	17443	(bioinert or biocompatible) and (blade scalpel drill bit knife cutter saw needle dissector pin screw tool instrument)	USPAT; US-PGPUB	2003/07/10 10:11
3	2938	((bioinert or biocompatible) and (blade scalpel drill bit knife cutter saw needle dissector pin screw tool instrument)) and (bioinert or biocompatible) same (blade scalpel drill bit knife cutter saw needle dissector pin screw tool instrument)	USPAT; US-PGPUB	2003/07/10 10:01
4	1155	((bioinert or biocompatible) and (blade scalpel drill bit knife cutter saw needle dissector pin screw tool instrument)) and (bioinert or biocompatible) same (blade scalpel drill bit knife cutter saw needle dissector pin screw tool instrument)) and (bioinert or biocompatible) with (blade scalpel drill bit knife cutter saw needle dissector pin screw tool instrument)	USPAT; US-PGPUB	2003/07/10 10:03
7	28481	(technical near ceramic) or (ceramic same ((aluminum adj oxide) or (zirconium near oxide) or (silicon near nitride))) or (ceramic near (ytzp or ztpa))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:28
9	2637	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit or bushing or templet) same ((technical near ceramic) or (ceramic same ((aluminum adj oxide) or (zirconium near oxide) or (silicon near nitride))) or (ceramic near (ytzp or ztpa)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:35
11	2206	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit or bushing or templet) same ((technical near ceramic) or (ceramic with ((aluminum adj oxide) or (zirconium near oxide) or (silicon near nitride))) or (ceramic near (ytzp or ztpa)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:40
12	1229	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit or bushing or templet) with ((technical near ceramic) or (ceramic with ((aluminum adj oxide) or (zirconium near oxide) or (silicon near nitride))) or (ceramic near (ytzp or ztpa)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:45
13	1213	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit or bushing or templet) with ((technical near ceramic) or (ceramic with ((aluminum adj oxide) or (zirconium adj oxide) or (silicon adj nitride))) or (ceramic near (ytzp or ztpa)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:48
14	9	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit) with (technical near ceramic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:02
15	31	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit) same (technical near ceramic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:54

16	22	((blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit) same (technical near ceramic)) not ((blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit) with (technical near ceramic))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 10:55
17	1207	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit) same (ceramic same (aluminum adj oxide))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:04
18	970	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or pin or screw or tool or instrument or scissors or saw or drill or bit) same (ceramic with (aluminum adj oxide))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:06
19	380	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) with (ceramic with (aluminum adj oxide))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:35
20	119	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) with (ceramic with (zirconium adj oxide))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:38
21	627	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) with (ceramic with (silicon adj nitride))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:42
22	0	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) with (ceramic near (ytzp or ztpa))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:43
23	9	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) and (ceramic with(ytzp or ztpa))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:43
24	9	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) and (ceramic with(ytzp or ztpa))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 11:47
25	18	(blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or tool or instrument or scissors or drill or bit) and (ytzp or ztpa)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/10 12:15
26	0	("(ytzp or ztpa) adj3 (comprises or composed)").PN.	USPAT; US-PGPUB	2003/07/10 12:15
27	0	(ytzp or ztpa) adj3 (comprises or composed)	USPAT; US-PGPUB	2003/07/10 12:16
28	0	(ytzp or ztpa) with (comprises or composed)	USPAT; US-PGPUB	2003/07/10 12:16
29	0	(ytzp or ztpa) with (comprises or composes)	USPAT; US-PGPUB	2003/07/10 12:16
30	31	(ytzp or ztpa)	USPAT; US-PGPUB	2003/07/10 13:12
31	4864	yttria near partially stabilized near zirconia	USPAT; US-PGPUB	2003/07/10 13:12
32	4865	yttria near partially neawr stabilized near zirconia	USPAT; US-PGPUB	2003/07/10 13:13

33	106	yttria near partially near stabilized near zirconia	USPAT; US-PGPUB	2003/07/10 13:27
34	1230	partially near stabilized near zirconia	USPAT; US-PGPUB	2003/07/10 13:25
35	1976	yttria near zirconia	USPAT; US-PGPUB	2003/07/10 13:25
36	1240	(yttria near zirconia) and (blade or scalpel or drill or bit or knife or cutter o saw or needle or dissector or scissors)	USPAT; US-PGPUB	2003/07/10 13:28
37	575	yttria with partially with stabilized with zirconia	USPAT; US-PGPUB	2003/07/10 13:27
38	380	(yttria with partially with stabilized with zirconia) and (blade or scalpel or drill or bit or knife or cutter o saw or needle or dissector or scissors)	USPAT; US-PGPUB	2003/07/10 13:30
39	299	((yttria with partially with stabilized with zirconia) and (blade or scalpel or drill or bit or knife or cutter o saw or needle or dissector or scissors)) not (yttria near partially near stabilized near zirconia)	USPAT; US-PGPUB	2003/07/10 13:29
40	253	(yttria with partially with stabilized with zirconia) and (blade or scalpel or drill or bit or knife or cutter or saw or needle or dissector or scissors)	USPAT; US-PGPUB	2003/07/10 13:53
41	11	coorstek.AS.	USPAT; US-PGPUB	2003/07/10 14:42
42	845	al2o3	USPAT; US-PGPUB	2003/07/10 14:43
43	139	y2o3	USPAT; US-PGPUB	2003/07/10 15:02
44	1	("6160161").PN.	USPAT; US-PGPUB	2003/07/10 15:03
45	1	("5830816").PN.	USPAT; US-PGPUB	2003/07/10 15:06
128	4482	ceramic with (scissors or blade or drill or bit or knife)	USPAT; US-PGPUB	2003/07/10 16:03
129	4211	ceramic with (scissors or blade or drill or knife)	USPAT; US-PGPUB	2003/07/10 16:04

ZIRCONIA MATERIALS



CoorsTek is recognized worldwide for over 80 years of experience in the manufacturing of technical ceramics. CoorsTek's ceramic materials have proven to be unparalleled in quality. CoorsTek's zirconia materials, TTZ (Transformation Toughened Zirconia), YTZP (Yttria-partially Stabilized Zirconia), ZTA (Zirconia Toughened Alumina), and AZ-25 (Alumina-Zirconia Composite) provide unique characteristics to ensure dependable and economic solutions for our customers worldwide. CoorsTek has recently developed both a CeTZP (Ceria Stabilized) and a CeATZ (Alumina Toughened Zirconia) to provide additional strength to existing materials. CoorsTek is continually developing new materials to meet the needs of the ever changing market place.

Zirconia Material Advantages:

- **Excellent Strength and High Fracture Toughness:** Zirconia is able to absorb the energy of impact that causes ceramic materials to shatter.
- **Surface Finish:** Zirconia is a highly polishable material that can achieve a 2-4 microinch Ra.
- **Excellent Thermal Stability:** Zirconia can tolerate thermal gradients better than most other high temperature materials. The coefficient of thermal expansion is similar to steel, allowing for stable performance in metal and ceramic component and assembly designs.
- **Wear Resistant:** Zirconia outperforms conventional components in demanding corrosive, abrasive, and erosive environments.
- **NSF and USP Class VI Certified:** CoorsTek's Zirconia material is certified for various medical and implant applications (Data available upon request).

Typical Applications Include:

- Fluid handling components
- Medical equipment components
- Pumps
- Seals
- Valves
- Bearings & Bushings
- Knife blades
- Electro-surgical devices
- Implant units
- Buttons
- Mechanical applications